

1. A method of making a cartilaginous prosthesis comprising seeding a polymeric matrix construct with chondrocytes and contacting the seeded construct with a hedgehog therapeutic.  
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2. The method of claim 1, wherein the chondrocytes are articular chondrocytes.
3. The method of claim 2, wherein the hedgehog therapeutic is a naturally-occurring hedgehog polypeptide.  
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4. The method of claim 2, wherein the hedgehog therapeutic is a hydrophobically-modified hedgehog polypeptide.  
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5. The method of claim 3, wherein the hydrophobically modified hedgehog polypeptide is di-palmitoyl sonic hedgehog or dipalmitoyl indian hedgehog.
6. The method of claim 4, wherein the seeded construct is contacted with di-palmitoyl hedgehog at a concentration of at least 500 ng/ml.  
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7. The method of claim 4, wherein the seeded construct is contacted with di-palmitoyl sonic hedgehog at a concentration of between 500 and 1000 ng/ml
8. The method of claim 1, wherein the polymeric matrix is selected from the group consisting of polyglycolic acid, collagen, dextran sulfate, polyanhydride, polyorthoester, hyaluronic acid-based polymers, and a glycosaminoglycan.  
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9. The method of claim 6, wherein the polymeric matrix is polycaprolactone.  
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10. A tissue culture system for the production of cartilage comprising a polymeric matrix, chondrocytes adherent to the matrix and a culture medium comprising an amount of a hedgehog therapeutic sufficient to cause an increase in the

proteoglycan content of the cartilage, compared to the content in absence of the hedgehog therapeutic.

11. The tissue culture system of claim 10, in which the hedgehog therapeutic is a  
5 naturally occurring hedgehog polypeptide.
12. The tissue culture system of claim 11, in which the hedgehog polypeptide is sonic hedgehog or indian hedgehog.
- 10 13. The tissue culture system of claim 10, in which the hedgehog therapeutic is a hydrophobically modified hedgehog polypeptide.
14. The tissue culture system of claim 13, in which the hedgehog therapeutic is dipalmitoyl sonic hedgehog or dipalmitoyl indian hedgehog.
- 15 15. The tissue culture system of claim 14, in which the amount of the hedgehog therapeutic is between 500 and 1000 ng/ml.